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# Retrospective Study of DoD Pilot Housing Programs

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## **Executive Summary**

### **RETROSPECTIVE STUDY OF DoD PILOT HOUSING PROGRAMS**

In 1988, Congress authorized \$1 million to fund a pilot housing program to assist DoD and local housing agencies in establishing programs to increase – or at least, to stabilize – affordable housing for military families. The program was designed to elicit from private lenders and developers innovative techniques for providing such housing. The DoD Office of Economic Adjustment then selected eight community housing groups to receive grants for local housing projects.

Overall, the Pilot Housing Program may be considered a success at all eight locations given the size and scope of the program's funding levels. All community housing groups developed some program to add to the availability of affordable housing for military personnel or to enhance such housing. However, the absolute number of families served in each case was very small in comparison with the number of families needing affordable housing, which reflects the scarce resources available for program grants.

For any future DoD housing programs, we recommend the following:

- Only *large* military bases should consider implementing housing rental rehabilitation projects.
- Revolving fund housing rehabilitation projects should be used when the demand for housing is small, when military housing programs are not feasible, or when private housing is either unaffordable or unavailable.
- The DoD should publicize the availability of the Federal Low-Income Housing Tax Credits for landlords offering low-income housing. In many communities the number of military families in this income category is considerable.

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## **CHAPTER 1**

### **INTRODUCTION**

#### **BACKGROUND**

Military Service members have selected careers that require them and their families to make frequent moves, often to remote or high-cost locations. The DoD is committed to providing those families with adequate housing or housing allowances to ease the burden of relocating every few years. Military families are encouraged to live in the immediate community when adequate housing units are available. The DoD emphasizes the use of private sector housing for military personnel, but in some locations, such housing is simply unavailable. In these cases, DoD relies on the military construction program to build housing that will be operated and maintained by the Military. The DoD has other programs such as "long-term leasing" and "build-to-lease" contracts that are also intended to increase the supply of housing units.

While all of the programs described above have been successful in the past, affordable housing remains a problem for military families. In particular, in many high-cost urban areas, enlisted personnel with lower salary grades are often not eligible for on-base housing or must be put on a waiting list before Government quarters are assigned. These lower salaried enlisted families generally require the most assistance to obtain affordable housing.

To help defray the cost of private housing, DoD provides personnel with a basic allowance for quarters (BAQ). Married Service members or those otherwise responsible for dependents are eligible for BAQ at the higher "with dependents" rate. The BAQ does not normally vary by local geographical market rates. As a result, housing allowances for Service members in certain high-cost areas of the country are alone often insufficient to provide adequate housing. But for the variable housing allowance (VHA) available at selected locations, many military families would suffer inequities in their standards of living when compared with those stationed in lower cost areas. The VHA compensates for many of the geographical differences in housing costs. Unfortunately, for military families at the bottom of the earnings ladder, affordable rental housing remains elusive even with the VHA. Consequently,

DoD has initiated several other housing programs to provide affordable housing to its military members.

The remainder of this chapter examines the Pilot Housing Program funded by DoD and it describes eight local (grantee) projects developed through the program. Chapter 2 compares the costs of the Pilot Housing Program with other DoD housing programs. Chapter 3 presents our conclusions and recommendations.

In July 1988, nine community housing groups in California, Florida, Georgia, New York, Puerto Rico, and Virginia were selected to receive grants from DoD for pilot housing projects (eight of which were accepted and implemented). The grants were used for rental rehabilitation, homeowner rehabilitation, organization and feasibility studies, and the establishment of revolving funds for rent deposits. Table 1-1 lists the grants awarded by grantee and describes each proposed project.

## **PILOT HOUSING PROGRAM**

### **Enabling Legislation**

To encourage both civilian and military housing officials to pursue new ways to increase or stabilize affordable housing stock, Congress authorized a \$1 million Pilot Housing Program [see Section 2321 of the National Defense Authorization Act (NDAA) for fiscal years 1988 and 1989 in Appendix A]. The Pilot Housing Program is intended to assist DoD in cooperation with local governments surrounding military bases in providing local housing.

### **Program Objectives**

The Pilot Housing Program was designed to encourage private lenders and developers of affordable housing projects to participate in the development and testing of innovative techniques for housing Military Service members. Many communities wish to establish housing programs for low- and moderate-income households but lack the planning resources or expertise to design such programs. In addition, the Pilot Housing Program acts as the catalyst for the local base commander and housing officer to ally with community housing officials and the private sector in assembling a joint military-civilian housing group. Using this mechanism, both the Military's housing needs and the community's existing housing programs can be addressed and a working relationship can be established.

**TABLE 1-1**  
**PILOT HOUSING PROGRAM PROJECT SUMMARIES**

Grantee	Installation(s)	Project description	Total grant amount awarded by DoD <sup>a</sup>	Amount used
San Diego Housing Commission, CA	NB San Diego	Supplement a local rental deposit guarantee program	\$23,205 <sup>b</sup>	\$23,205
Sunnyvale Community Development Department, CA	Onizuka AFB and NAS Moffett Field	Supplement a revolving loan program for rental rehabilitation	\$56,175	\$45,000
City of Hinesville Community Development Department, GA	Fort Stewart	Revolving loan fund for rental rehabilitation and joint military/civilian advisory group	\$221,025	\$221,025
City of Warner Robins, GA	Robins AFB	Revolving loan fund for rental rehabilitation; and refinancing	\$235,955	\$235,955
Housing Authority of the City of Key West, FL	NAS Key West	Revolving loan fund for rental rehabilitation and loans to military families to offset initial rental costs	\$156,185	\$53,157
Development Authority of the North Country Watertown, NY	Fort Drum	One-time startup costs, technical assistance, predevelopment costs, and joint military/civilian advisory group	\$144,095	\$143,613
Ceiba Housing & Economic Development Corporation, PR	NS Roosevelt Roads	Revolving loan fund for rental rehabilitation and joint military/civilian advisory group	\$111,125	\$111,125
Norfolk Redevelopment & Housing Authority, VA	NB, NAS Norfolk and NAB Little Creek	Revolving loan fund for home ownership rehabilitation	\$144,095	\$144,095

**Notes:** NB = Naval Base; AFB = Air Force Base; NAS = Naval Air Station; NS = Naval Station; NAB = Naval Amphibious Base

<sup>a</sup> Does not total \$1 million since undistributed money from some programs was reallocated to other programs.

<sup>b</sup> The San Diego Housing Commission committed an additional \$20,000 to this amount, bringing the total to \$43,205

*Grantees' responsibilities* consist of program management, fiscal management, development of private sector contacts (e.g., program advertisement, property identification, loan approvals, loan servicing), preparation of quarterly reports, requests for funds, and accountability (e.g., audit, loan records, building code, and Federal funds).

*Military base responsibilities* consist of providing program feedback, developing housing requirements, developing military family contacts (e.g., through program advertising, family referrals, and rent affordability), contacting the Office of Economic Adjustment (OEA), evaluating programs, and providing technical support. *Joint responsibilities* consist of conducting program operations, completing applicant reviews, monitoring, completing rehabilitation inspections, obtaining location consensus, and working for benefit maximization to military families.

### **Project Selection Process**

As set forth in Section 2321 of the NDAA (see Appendix A), the eight grantee sites were selected for the Pilot program on the basis of the following criteria:

- The site had the potential to establish a joint military-civilian venture to increase, or prevent the decrease of, affordable housing in the communities.
- Local private corporations had demonstrated a willingness to provide contributions or loans to promote the pilot project.
- The local government had made a commitment to assure that a reasonable share of the housing units provided by the Pilot program would be made available to military families.

The Secretary of Defense, through the OEA, was authorized to make grants, enter into cooperative agreements, and supplement funds made available under other Federal programs administered by agencies other than DoD, in order to assist units of local government, housing and redevelopment authorities, and nonprofit housing corporations. Grants were made available for revolving housing loan funds, housing loan guarantee funds (to ensure repayment of housing loans to the private lender), feasibility studies of potential housing programs, one-time startup costs of housing programs, joint community-military technical advisory organizations, and other similar or related activities. The broad scope of the Pilot Housing Program guidelines led to a number of proposals for grant awards. The two most frequent types of proposals selected for funding were rental rehabilitation programs – set up as revolving loan funds – and organizational startup funding. In seven of the eight communities, multiple projects were funded.

### **PROJECT DESCRIPTIONS**

Each of the community authorities that was awarded a grant under the Pilot Housing Program selected the type of project that it felt would most likely meet the



stated objective of providing additional affordable, low- and moderate-income housing in its area. The Pilot Housing Program was intended to increase the supply of housing. The success of each grantee project was largely dependent upon the local economies and local housing market conditions. A discussion of each grantee's experience with the program follows.

### **San Diego, California**

The San Diego area is home to over 70,000 military personnel. Although the Navy is the primary Service represented, Army, Air Force, and Marine Corps personnel are also stationed in the general vicinity. San Diego is one of the country's most expensive areas in which to live. As a result, the military has had to build housing on base for its Service members since affordable housing (i.e., within military personnel housing allowances) in the community is limited. However, there are not enough DoD-constructed housing units to meet the housing demand, and many personnel still have to rely on the community for their housing.

The Pilot Housing Program funds were used to supplement the local rental deposit guarantee program. The San Diego Housing Commission (the "Housing Commission") established a rental security deposit program *for military families*. With an agreement from a landlord, military personnel could pay required deposits (i.e., the first plus the last months' rent and/or security deposit) over a 12- to 18-month period. These deposits typically varied from \$500 to \$1,500. The Pilot program funds were held in reserve as a guarantee for deposit defaults.

The Navy was successful in getting several large rental property management companies to agree to operate the local program for all of their available units. Initially, the deposit guarantee was matched on a dollar-for-dollar basis; it covered the needs of about 50 families. However, the Housing Commission agreed that a three-to-one ratio of rent-to-deposit guarantee amount was an adequate level of program resources, based on the local program's track record. The Housing Commission also committed \$20,000, raising the total program funding to over \$43,000.

Considering the large military population and the number of rental units needed to adequately house military families, the rental deposit guarantee program implemented in San Diego can be regarded only as marginally successful, since only 216 families were afforded use of the program. The program had the potential to

serve about 130 families at any given time with an average deposit of about \$331 each. Additionally, the program did not provide a means for making housing more affordable on a monthly basis to the military members; it simply covered some portion of their initial outlay. Therefore, only those Military Service members who could initially afford the rent were able to participate in the program.

### **Sunnyvale, California**

Sunnyvale is home to Naval Air Station Moffett Field and Onizuka Air Force Base, which together account for over 7,000 military personnel. These installations lie south of the city of San Francisco in the Silicon Valley, arguably the most expensive place that military personnel live in the continental United States. An average rental unit typically costs as much as \$500 above the average enlisted member's BAQ and VHA. Although both of these installations offer on-base housing (a total of about 800 units), that housing is quite limited and does not adequately meet the needs of their respective populations.

The Sunnyvale Community Development Department established a revolving loan program to supplement its existing rental rehabilitation program. This pilot housing program served both the Naval Air Station and the Air Force Base. The main objective was to lower market rental rates for military (particularly enlisted) families. The maximum allowable rental-rehabilitation loan was \$5,000 per unit, at below-market-rate interest, over a 10-year period. The property owner was obligated to provide 50 percent of the rehabilitation cost from his/her own resources (or from a conventional bank loan). Property owners were required to rent to military families for the duration of the loan.

As a result of the local program, four construction projects on multi-unit dwellings were completed and nine military families were assisted. Some of these families were also eligible for Section 8 leased housing rental assistance. Section 8 assistance prevents those eligible families from paying more than 35 percent of their incomes for rent (Section 8 mandates payment of the difference between this and the landlord's market rate). However, according to the terms of the rental rehabilitation program, only the *first* family to live in each newly restored residence could be eligible for Section 8 assistance.

Sunnyvale has a very low housing vacancy rate. It was therefore difficult to market the local pilot program to property owners, since they are typically able to

obtain and retain tenants without having to invest their own funds. However, the Sunnyvale Community Development Department reported that the pilot program funds gave landlords the ability to leverage additional funds from other commercial sources for moderate- and low-income housing projects.

### **Hinesville, Georgia**

Over 12,000 Army personnel are stationed at Fort Stewart in Hinesville, Georgia. Fort Stewart has over 1,300 units of on-base housing; the remaining military population must rely on limited community housing. Prior to the mid-1970s (when the 24th Infantry Division was activated at Fort Stewart), Hinesville was predominantly a rural area with only about 2,000 military personnel stationed at the base. Since then, however, the city has grown to support the needs of the additional military personnel. The housing market consists of a full range of rental units and units for sale.

The city of Hinesville used the pilot housing funds to establish a rental rehabilitation revolving loan program. The local program was intended to help enlisted families, specifically military grades E-4 through E-6, assigned to Fort Stewart. The principal program objective was to lower rents by subsidizing interest rates below market levels so that housing would be more affordable to the enlisted ranks.

The maximum loan amount was \$25,000 at 80 percent of the commercial prime lending rate, and the loan term was 10 years. The participating landlords were required to rent to military families for the first 5 years of the loan and could not raise the rent more than 5 percent per year. Seventeen housing units were rehabilitated. Two hundred units of Section 801 leased housing are due to become available in the future, which should reduce the under supply of housing in the Hinesville area. As a result, the local housing program will probably have only limited application in the future.

### **Warner Robins, Georgia**

Robins Air Force Base is located on over 8,000 acres of land about 15 miles south of Macon, Georgia; over 5,000 military personnel are stationed there. The city of Warner Robins used the Pilot Housing Program funds to establish a revolving housing loan fund intended to increase the number of affordable housing units. The

fund provided low-interest loans to landlords offering single-family homes for rehabilitation and refinancing. These loans were targeted toward vacant homes or homes already rented to military families when the existing mortgage balance was less than \$20,000.

The maximum loan amount set for the program was \$25,000 with a fixed interest rate of 5 percent. Landlords had to agree to rent to military families for at least 5 years, to limit rent increases to no more than 5 percent annually, and to maintain rents that do not exceed the tenants' BAQ and VHA by more than 10 percent. Ten houses were made available under the Pilot Housing Program; eight of which were supported by refinance/rehabilitation loans, and the remaining two were interest buydowns.

### **Key West, Florida**

Over 3,000 Navy and Coast Guard personnel are stationed in Key West, and over 1,400 on-base family housing units support those personnel. Many of the families must rely on limited community housing. However, rental rates in Key West are among the highest in the State of Florida due to the growing popularity of the area for tourists and vacation home buyers. Existing rental units have become increasingly expensive and, thus, unaffordable to the regular Military Service member. Therefore, regular Military Service members must live in adjoining communities much farther north in the Florida Keys.

The Pilot Housing Program funds were used to implement two different programs in Key West. The first program was a low-interest security deposit loan program similar to the one implemented in San Diego. However, in Key West, a low-interest loan was actually only made to Service members who used the funds for the security and utilities deposits. The loans were intended to be used for about 50 families, but only 9 family loans (in the amount of \$1,000 each) were issued because there was little demand for the program's services. These loans were repaid using a payroll deduction plan.

The second program implemented at Key West was a rental rehabilitation loan program similar to the one used in Sunnyvale. The Key West program established a revolving loan fund to assist owners of rental property with the rehabilitation of their existing units. This program was originally intended to serve nine military families; however, only two family loans were made during the life of the program. Market

studies in the Key West area have shown that the rehabilitation loan is not an attractive incentive to rental property owners because they can typically fill rental vacancies at higher rental rates regardless of the incentives for low-interest loans, guaranteed tenants, or rehabilitation funds.

### **Watertown, New York**

Fort Drum is an Army base located in northern New York State, home of the 10th Mountain Division. Since the mid-1980s, Fort Drum has enjoyed a rapid expansion that has brought an increased number of military personnel to the area. As a result, significant new housing construction has taken place in the area, including DoD housing initiatives (both on-base housing and build-to-lease housing) as well as private development. However, until recently, there was still a shortage of affordable housing, especially for junior enlisted personnel.

The Development Authority of the North Country (the "Development Authority") used the Pilot Housing Program funds in two areas. First, funds were used for the administration of the Development Authority's Affordable Rental Housing Program. New York State had given the Development Authority \$12 million to develop rental housing affordable to persons of low and moderate income. The Pilot Housing Program funds were used to cover administrative costs associated with that program. It should be noted that while those funds helped leverage the program's start, the program still would have been implemented.

Five construction projects created 589 new and rehabilitated apartment units in the general Fort Drum vicinity for people with low to moderate incomes. Four of the land developers took advantage of the Federal Low-Income Housing Tax Credits that allowed them to offer significantly reduced rents. As a result, other rental agencies or landlords in the area had to lower their market rental rates to remain competitive, thereby reducing rental rates throughout the North Country area.

The Development Authority also used the pilot housing funds for issuing subgrants to nonprofit housing providers to build their administrative and professional capacities in order to undertake new development projects. Subgrants were awarded to support market studies, feasibility analyses, project marketing, and administration.

The Pilot Housing Program implemented in the Fort Drum area was successful primarily because pilot program funds enabled the Development Authority to establish a cohesive local program to review construction plans and programs and to effectively leverage \$12 million of state funding. More importantly, the Federal funds supported development and administration of the initial state-funded program that leveraged an additional \$22.3 million in private and public investment toward providing more affordable housing to the military and the community at large.

### **Ceiba, Puerto Rico**

The U.S. Naval Station at Roosevelt Roads surrounds the town of Ceiba, Puerto Rico. Over 2,500 military personnel are stationed at the Naval Station. The Navy has over 900 housing units on the base to support its personnel. However, a significant shortage of housing still exists. In fact, the waiting list for on-base housing ranges from 6 to 9 months depending upon the size of the unit desired. Ceiba has a limited housing supply and the rental units are often in poor condition. Some towns further from the base have better housing conditions, but rental rates are high and military personnel generally prefer to live closer to the base.

The Ceiba Housing and Economic Development Corporation used the Pilot Housing Program funds to establish rental rehabilitation loans. These loans were intended to increase the number of affordable rental housing units available to military families by lowering interest rates used to finance rehabilitation work. The intent of the program also was to improve neighborhood conditions and bring rental housing units up to local building codes. The average loan was \$5,000 at 7 percent interest for 5 years. In total, the program provided 19 housing rehabilitation loans, and 33 housing units were rehabilitated serving 37 families.<sup>1</sup> Several of the units that were rehabilitated had been in very poor condition and were causing blight in their neighborhoods. A peripheral social benefit was served in that improving these units eliminated further urban decay of those particular areas.

### **Norfolk, Virginia**

Norfolk is often considered the home of the U.S. Navy because of its tremendous presence in the Tidewater area. Over 100,000 Navy personnel are stationed in the

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<sup>1</sup>Some were multifamily units.

area, accounting for about one-fifth of all Navy personnel. There are over 6,200 on-base housing units and an additional 300 Section 801 leased housing units. The majority of the Navy personnel stationed in the Tidewater area, however, must rely on private housing sources.

The Norfolk Redevelopment and Housing Authority established a revolving loan program to assist enlisted military homeowners in repairing and upgrading their properties. Enlisted members that wanted to purchase a home or rehabilitate a home in the Ocean View area of Norfolk were targeted for eligibility. Ocean View was selected because of its close proximity to the base, because of the significant number of military personnel who live there, and because the Pilot Housing Program would reinforce an existing neighborhood conservation program.

The maximum loan amount for the program was \$15,000 per unit at an interest rate of 5 percent with a 15-year deferment, at which time the participant would have 15 years to repay the loan. Because of the transient nature of military personnel, these loans were made assumable; the seller was responsible for paying all accrued interest at the time of sale. These loan funds were then placed in the revolving fund to provide for future loans to other enlisted members.

Although only 10 loans were made to qualified military families to perform rehabilitation work on their homes, well over 30 military families applied for the loans. However, the Norfolk program was used as a means for upgrading properties rather than as a way of providing additional affordable rental housing for military families. This program served as an incentive for home ownership so that military personnel could establish equity in housing.

## **CHAPTER 2**

### **COST COMPARISON OF DoD HOUSING ALTERNATIVES**

In this chapter, we evaluate the cost effectiveness of the various DoD housing programs in comparison to the Pilot Housing Program.

#### **THE COST OF PROVIDING MILITARY HOUSING**

##### **DoD Housing Alternatives**

The DoD currently relies on three housing programs to provide affordable housing to its Military Service members: the BAQ and VHA programs, leased housing (Sections 801 and 802), and military-constructed and -operated housing (typically located on base or on Government property). The BAQ and VHA subsidies are intended to allow the Service member to obtain adequate housing from the private sector. In areas where private housing markets are insufficient or housing is unaffordable to military personnel, the Services either construct homes or lease housing from the private sector to satisfy their housing demands.

Although the three programs described above have been successful, producing positive results, junior enlisted personnel still have difficulty finding affordable housing in many locations. This is most prevalent in metropolitan or highly seasonal areas (e.g., San Diego and Key West) where the cost of living is significantly higher than in more rural locations.

The DoD Pilot Housing Program was specifically intended to test programs in the field that could be used to help supplement the private housing available to Military Service members in these areas by creating additional affordable housing units or by stabilizing the supply. To provide an equitable basis for comparison, we evaluated the annualized cost per housing unit of the three existing DoD housing programs and the Pilot Housing Program under review.

##### **DoD-Constructed Housing**

DoD-constructed housing is operated and maintained by the base housing office and facility engineers at each installation. The units are typically located on base.



The cost of maintaining this housing includes the cost of housing administration, operations, maintenance and repair, as well as the energy costs associated with DoD housing operations.

The estimated per-unit costs of on-base, DoD-constructed housing were compiled using data collected from the Naval Facilities Engineering Command (NAVFAC); the Army's Housing Office at Forces Command (FORSCOM); and Headquarters, Air Force Directorate of Housing. The annual cost of capital was derived using straight-line depreciation of total housing construction costs assuming a 30-year life expectancy. Table 2-1 depicts the Government's average annual cost per unit for providing DoD-constructed, on-base housing at the eight pilot housing locations. Detailed data showing actual costs by category are found in Table 2-2.

**TABLE 2-1**

**ESTIMATED ANNUAL PER-UNIT COST OF DoD-CONSTRUCTED ON-BASE HOUSING**

Location	Cost per housing unit		
	Annual operating costs	Annual cost of capital	Total annual per-unit cost
San Diego, CA	\$6,046	\$5,233	\$11,279
Sunnyvale, CA	\$3,681	\$6,333	\$10,014
Hinesville, GA	\$4,270	\$4,167	\$8,437
Warner Robins, GA	\$4,413	\$3,667	\$8,080
Key West, FL	\$5,690	\$4,167	\$9,857
Watertown, NY	\$3,520	\$5,000	\$8,520
Ceiba, PR	\$6,645	\$5,833	\$12,478
Norfolk, VA	\$5,432	\$3,667	\$9,099
Average per-unit cost of locations	\$4,962	\$4,758	\$9,721

**Sources:** NAVFAC Family Housing Directorate; FORSCOM Housing Office; and Headquarters, Air Force Directorate of Housing.

### **DoD-Leased Housing**

The Government uses two leased housing programs to obtain affordable rental housing for its personnel. The Section 801 "Build to Lease" program allows DoD to

TABLE 2-2

## DETAILED HOUSING COST DATA FOR DoD-CONSTRUCTED HOUSING

Funding category	Actual FY91 \$000							
	San Diego	Sunnyvale	Hinesville	Warner Robins	Key West	Watertown	Ceiba	Norfolk
Operations	\$4,275	\$599	\$2,374	\$700	\$1,757	\$1,322	\$1,170	\$5,270
Maintenance and repair	\$22,776	\$1,458	\$6,035	\$3,583	\$2,451	\$3,984	\$1,867	\$12,213
Utilities	\$11,878	\$910	\$3,236	\$1,878	\$3,844	\$2,786	\$3,429	\$6,522
Total	\$38,929	\$2,967	\$11,645	\$6,161	\$8,052	\$8,092	\$6,466	\$24,005
No. of housing units	6,439	806	2,727	1,396	1,415	2,299	973	4,419
Average per unit operating cost	\$6,046	\$3,661	\$4,270	\$4,413	\$5,690	\$3,520	\$6,645	\$5,432

increase the supply of housing units available to Military Service members directly through new construction of Government-leased units. Here, DoD offers incentives to developers in the form of long-term leases to build and operate rental properties for military families. The Section 802 "Rental Guarantee" program allows DoD to guarantee a building owner an occupancy rate of up to 97 percent. Each of these has been only marginally successful. With new legislative guidance, each program was renamed to Section 2835 and Section 2836, respectively.

Although DoD-leased housing was available in only three of the eight areas where the Pilot Housing Program was used, our comparative analysis of housing costs addresses these programs. The cost of providing personnel with housing through these programs can be measured by assessing the per-lease cost of the housing currently contracted for through the various DoD agencies as well as the overhead cost to administer the housing program. Table 2-3 shows the estimated annual per-unit cost of DoD-leased housing costs in locations where Section 801 or 802 housing was still active. Table 2-4 provides more detailed data related to DoD-leased housing costs.

TABLE 2-3

ESTIMATED ANNUAL PER-UNIT COST OF  
DoD-LEASED HOUSING

Location	Annual per-unit cost
Hinesville, GA	\$9,575
Watertown, NY	\$12,341
Norfolk, VA	\$11,627
Average per-unit cost	\$11,181

Source: NAVFAC Family Housing Directorate and FORSCOM Housing Office.

Note: Leased housing refers to the Sections 801 and 802 programs.

TABLE 2-4

## DETAILED DATA FOR DoD-LEASED HOUSING COSTS

Location	Total annual leasing costs (\$000)	Number of leased units	Annual per unit cost
Hinesville, GA	\$383	40	\$9,575
Watertown, NY	\$24,681	2,000	\$12,341
Norfolk, VA	\$3,488	300	\$11,627

## DoD Pilot Housing Program

The DoD Pilot Housing Program's key objective was to increase, or at least stabilize, the supply of affordable housing for military families, especially in the junior enlisted grades. Under the initial grant application competition held in June 1988, nine awards totaling \$1 million were made to local housing groups in cities located in California, Florida, Georgia, New York, Puerto Rico, and Virginia. These funds, as described in Chapter 1, were used in a variety of ways to create more affordable housing for military personnel stationed in those areas. The number of

units supported and the grant amounts varied significantly from one geographical location to another depending upon how each locale chose to use the funds.

It is important to note that although the program was intended to provide additional affordable housing for military personnel, the local housing authority could not guarantee that outcome. As a result, in some of the locations only a portion of the housing units recently available through the program were occupied by military personnel. The pilot local housing programs were usually one of several other housing programs administered by local housing authorities; so it was difficult to assess the administrative costs associated with each local program. In fact, none of the local housing authorities had a definitive breakout of data related to the overhead costs associated with their programs.

Table 2-5 shows the estimated annual per-unit housing cost of the DoD Pilot Housing Program. The per-unit housing cost was calculated by dividing the total program cost (i.e., the grant amount) by the number of units ultimately made available, assuming a 10 year program life. Additionally, since personnel eligible for the units made available through the program continue to receive BAQ and VHA benefits, these costs are included as well. Table 2-6 provides additional detail regarding this calculation.

As illustrated in Table 2-7, a comparison of the average annualized costs of the various DoD housing programs, the DoD Pilot Housing Program is less costly than either Government-owned or -leased housing. However, the Pilot Housing Program costs do not include the cost of administering the program. Based on our previous housing experience, this administration cost is typically not trivial; the cost of implementing the Pilot Housing Program at each military location is most likely understated by about 20 percent.

The local housing programs were set up to *increase* the number of available affordable units. Therefore, instead of comparing program costs to current BAQ/VHA rates, we compared program costs to the estimated cost of making additional units affordable through higher housing allowances.

First, we obtained the number of E4 through E6 Service members eligible for BAQ at the "with dependents" rate in FY91. Second, we calculated how much \$1 million in additional funding would increase each member's allowance. Third, using sample survey data, we compared allowances with actual rents paid and

TABLE 2-5

ESTIMATED ANNUAL PER-UNIT HOUSING COST OF THE  
DoD PILOT PROGRAM

Location	Average annual per-unit housing cost
San Diego, CA	\$7,772
Sunnyvale, CA	\$10,448
Hinesville, GA	\$6,616
Warner Robins, GA	\$7,280
Key West, FL	\$9,843 <sup>a</sup>
Watertown, NY	\$7,498
Ceiba, PR	\$6,985
Average of locations	\$8,063

Note: Norfolk was not included because no additional affordable housing was made available.

<sup>a</sup> Average of two project types.

estimated the additional number of rental units that would be considered suitable (in terms of cost) if allowances increased by the calculated amount. Finally, we divided \$1 million by the estimated number of additional units to obtain the average unit cost.

We had the necessary data for generating the estimated number of additional units from only five of the eight Pilot Housing Program locations. As shown in Table 2-8, the cost per additional unit varied widely depending upon the base population, the proportion of E-4 through E-6 military personnel renting off the post, and the local housing rental rates. Nevertheless, it is clear that targeted BAQ/VHA allowance increases can be a much cheaper method for increasing the affordable housing supply at installations with well-developed, private rental markets. However, landlords may increase rental rates, thereby offsetting the increased allowance.

#### BENEFITS TO MILITARY PERSONNEL

Military Service members benefit from the Pilot Housing Program because local renters (grantees) can elect to place ceilings on rents and rent increases, thereby reducing the out-of-pocket expense incurred by the Military Service member.

**TABLE 2-6**  
**DETAILED DATA FOR DoD PILOT HOUSING PROGRAM COSTS**

Location	DoD Pilot Housing Program funds used	Total program cost	Number of housing units	Annual BAQ and VHA	Per-unit cost <sup>a</sup>
San Diego, CA	\$23,205	\$43,205 <sup>b</sup>	216	\$7,752	\$7,772
Sunnyvale, CA	\$45,000	\$45,000	9	\$9,948	\$10,448
Hinesville, GA	\$221,025	\$221,025	17	\$5,316	\$6,616
Warner Robins, GA	\$235,955	\$235,955	10	\$4,920	\$7,280
Key West, <sup>c</sup> FL	\$53,157	—	11	\$9,360	\$9,843
Rehabilitation loan	—	\$17,342	2	\$9,360	\$10,227
Security deposit	—	\$9,000	9	\$9,360	\$9,460
Watertown, NY	\$143,613	\$12,143 613 <sup>d</sup>	589	\$5,436	\$7,498
Ceiba, PR	\$111,125	\$111,125	33	\$6,648	\$6,985

<sup>a</sup> Calculation: Per-unit cost = (Program cost/number of units)/10-year life + BAQ and VHA. This represents full cost to DoD.

<sup>b</sup> Program cost includes \$20,000 of additional funding received from the San Diego Housing Commission.

<sup>c</sup> Key West implemented two different programs. The per-unit cost is an average of the figures reflecting these two programs. Only a portion of Key West's funds was used.

<sup>d</sup> Program cost includes \$12 million of additional funding received from the state.

**TABLE 2-7**  
**COMPARISON OF ANNUALIZED COSTS**

Type of housing	Average annual cost
DoD-constructed housing	\$9,721
DoD-leased housing	\$11,181
DoD Pilot Housing Program	\$8,063

Table 2-9 illustrates the rents paid through the Pilot Housing Program compared with the standard market rental rates for those applicable locations and the subsequent savings to the Military Service member.

TABLE 2-8

## EFFECT OF ADDITIONAL \$1 MILLION IN BAQ/VHA FOR E-4 THROUGH E-6 RENTERS

Location	FY91 total E-4 - E-6 personnel authorized BAQ	Increase in suitable units	Cost per additional unit
San Diego, CA	27,053	1,145	\$873
Sunnyvale, CA	1,753	348	\$2,874
Key West, FL	1,359	79	\$12,658
Ceiba, PR	935	5	\$200,000
Norfolk, VA	33,415	623	\$1,605

**Note:** In Norfolk, VA, 33,415 E4-E6 personnel are eligible for BAQ at the "with dependents" rate. By dividing \$1 million by 33,415, we find that an additional \$1 million in BAQ/VHA would increase each eligible person's allowance by \$30. Using sample survey data, we found that the increase in allowance will increase the number of suitable rental units by 623. Therefore, the per-unit cost is \$1 million divided by 623 or \$1,605 per unit.

TABLE 2-9

PILOT HOUSING PROGRAM ANNUAL RENT COMPARED  
TO MARKET ANNUAL RENT

Location	Pilot Housing Program annual rent	Annual market rent <sup>a</sup>	Difference between Pilot Housing Program and market rent
Sunnyvale, CA	\$10,080	\$11,916	\$1,836
Hinesville, GA	\$4,800	\$6,300	\$1,500
Watertown, NY	\$4,500	\$6,000	\$1,500
Ceiba, PR	\$3,756	\$4,800	\$1,044

<sup>a</sup> Does not include the cost of utilities.

## **CHAPTER 3**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **CONCLUSIONS**

Overall, the Pilot Housing Program may be considered a success given the size and scope of the program funding levels. Because the amount of funding was small, the impact that the program had on providing and securing affordable housing for the military was also small. The purpose of the original funding was to test the viability of pursuing certain types of local housing programs on a larger scale. On an individual basis, all eight of the pilot projects have shown some degree of success.

Although the specific terms and conditions of the projects were unique to each location, all used one or two primary mechanisms as the basis for their projects: a revolving loan fund set up for local housing rehabilitation and/or a supplemental guarantee or assistance fund to provide rental deposit guarantees for military renters. The success of each of these mechanisms is considered separately below.

#### **Revolving Loan Funds for Rental Rehabilitation**

Six of the eight pilot locations chose to implement some form of rental rehabilitation program as the basis for their projects. All of the pilot projects may be considered somewhat successful in that they effectively added affordable housing units to the local rental market. However, in all cases, the absolute number of units provided was small, given the number of families in need of such programs. In Ceiba, the total number of units provided was 33, the most of any location. Overall, the program provided 310 units as shown in Table 3-1.<sup>1</sup>

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<sup>1</sup>This does not include Fort Drum units; 520 of the 589 units were new construction projects there. The construction monies were provided from state funding, not from the pilot program.



**TABLE 3-1**  
**PILOT HOUSING PROGRAM RESULTS**

Grantee	Number of families served <sup>a</sup>	Total DoD grant amount used	Total program cost per pilot housing unit <sup>b</sup>
San Diego, CA (216 rental/security loans)	216	\$23,205 <sup>c</sup>	\$200 <sup>c</sup>
Sunnyvale, CA (9 units rehabilitated)	9	\$45,000	\$5,000
Hinesville, GA (17 houses rehabilitated)	17	\$221,025	\$13,002
Warner Robins, GA (2 interest buydowns and 8 refinances/rehabilitations)	10	\$235,955	\$23,596
Key West, FL (9 initial subsidy loans and 2 rentals rehabilitated)	11	\$53,157	\$4,833
Watertown, NY (589 new units)	589 <sup>d</sup>	\$143,613	N/A
Ceiba, PR (33 units rehabilitated with 19 loans)	37	\$111,125	\$3,003
Norfolk, VA (10 owned houses rehabilitated)	10	\$144,095	\$14,409
Total/average	310 <sup>e</sup>	\$977,175	—

**Note:** N/A = not applicable.

<sup>a</sup> Families served include nonmilitary families.

<sup>b</sup> Does not include BAQ and VHA costs to DoD.

<sup>c</sup> DoD awarded \$23,205 to the program. The San Diego Housing Commission committed an additional \$20,000 to that amount, bringing the total to \$43,205. Two hundred dollars is calculated on the basis of the \$43,205 total funding amount.

<sup>d</sup> All money was spent for administration of the \$12 million state grant.

<sup>e</sup> Total units does not include Watertown.

### **Lessons Learned – Pilot Program Limitations**

If the Pilot Housing Program is to be expanded or extended in the future, DoD should first consider the following possible limitations:

- Not all renovated properties in the pilot program were designated for the exclusive use of Military Service members. In fact, some units were occupied by nonmilitary tenants throughout the duration of the program. While the clause that allows nonmilitary renters to occupy housing units acts to lower the risk to lenders and property owners, it detracts from the total number of units that could otherwise be used by the Military. This was a function of base housing referral offices' inability to find military tenants.

- Because of the small scale of the local projects, the revolving fund accounts are unlikely to produce sufficient revenues to provide any significant amount of additional housing units in the future.
- Any changes in on-base housing can have a significant effect on the future success of such projects. This would include the construction or leasing of new military housing and policies such as the eligibility of lower grade enlisted personnel for on-base housing.
- The overall number of additional units made available by the renovation projects at the pilot locations was quite small given the demand for additional affordable housing. Providing for 5 or 10 military families does not significantly address the problem when the need is to provide affordable housing for hundreds or even thousands of families. Also, it is unlikely that DoD would want to consider providing the necessary level of funding required for a large number of houses, given the fact that Government build and lease options may be available.
- Of significant concern is the level of administrative oversight required to plan, implement, and manage revolving loan rehabilitation projects. In all cases, both the base housing offices and the communities spent considerable time and effort coordinating the pilot programs. While much of their efforts were in the up-front planning phase, the level of effort is likely to expand with any additional projects. Likewise, extending such projects to other locations would require increased coordination from DoD to administer such programs.

### **Rental Deposit Guarantees**

Rental deposit guarantees were implemented to supplement out-of-pocket expenses incurred at the beginning of the lease term. While use of this method helps with the initial capital outlay, it does not provide ongoing assistance to Military Service members who must still pay monthly market rents. Only Military Service members who can afford the monthly rent will stand to benefit from deposit guarantee programs.

### **Planning and Assistance Funds**

The Fort Drum project focused on large-scale rehabilitation; instead of setting up a revolving fund, they used the grant monies to fund one-time startup costs, planning and technical assistance, and administrative support. In this case, DoD funds were used to supplement state and local efforts to provide affordable housing in the area. The community members implementing this project reported that the funding allowed them to effectively plan and coordinate the project beyond what they

could have done without those funds. In effect, the DoD funding helped leverage the success of the project by helping to fund the required administrative and technical planning.

## RECOMMENDATIONS

For any future DoD housing programs, we recommend the following:

- The DoD should consider implementing rental housing rehabilitation projects only at *large* military bases if Government standard "built" or "leased" housing programs are not feasible.
- Revolving fund housing rehabilitation projects should be considered when the demand for housing units is small, when military housing programs are not feasible, or when private housing is either unaffordable or unavailable.
- DoD should publicize the availability of the Federal Low-Income Housing Tax Credit for landlords offering low-income housing. In many communities the number of military families in this income category is considerable.

**APPENDIX A**

**PUBLIC LAW 100-180 – DECEMBER 4, 1987:  
PILOT PROGRAM “MISCELLANEOUS PROVISIONS”**

**PUBLIC LAW 100-180 – DECEMBER 4, 1987:**  
**PILOT PROGRAM “MISCELLANEOUS PROVISIONS”**

**TITLE II – MISCELLANEOUS PROVISIONS**

State and local  
governments.  
10 USC 2821  
note.

**SEC. 2321. PILOT PROGRAM FOR MILITARY FAMILY HOUSING**

(a) **IN GENERAL.** – (1) The Secretary of Defense shall, using \$1,000,000 of the funds appropriated pursuant to the authorization in subsection (a)(10)(B) of section 2145, establish and carry out, during fiscal years 1988, 1989, and 1990, a pilot program for the purpose of assisting units of general local government to increase the amount of affordable family housing available to military personnel.

(2) In establishing and carrying out such program, the Secretary shall select at least five units of general local government which are severely impacted by the presence of military bases and personnel and which meet the criteria in subsection (b).

(b) **SELECTION CRITERIA.** – The Secretary shall select such local governments on the basis of the following criteria:

(1) The extent, or the potential extent, of a joint civilian-military effort to increase, or prevent the decrease of, affordable housing units in the community served by the local government.

(2) The extent of willingness, or potential extent of willingness, of private corporations to contribute or loan money for the purpose of assisting in the effort described in paragraph (1).

(3) A commitment by the local government to assure that a reasonable proportion, taking into consideration the extent of Federal funding, of the housing units provided as a result of the effort described in paragraph (1) will be made available to military personnel

Grants.

(c) **TYPES OF ASSISTANCE.** – In carrying out this section, the Secretary may make grants, enter into cooperative agreements, and supplement funds made available under Federal programs administered by agencies other than the Department of Defense in order to assist units of general local government and housing and redevelopment authorities and nonprofit housing corporations authorized by such local governments.

(d) **USE OF FUNDING.** – To expand the supply or prevent the loss of affordable family housing, funds made available under this section may be used for –

Loans.

(1) funding a revolving housing loan fund established and administered by a government, authority, or corporation described in subsection (c);

(2) funding a housing loan guarantee fund established and administered by such a government, authority, or corporation to ensure repayment of housing loans made by a private lender;

(3) funding feasibility studies of potential housing programs;

(4) funding one-time start-up costs of housing programs;

(5) funding joint community-military technical advisory organizations; and

(6) other similar and related activities.

(e) **REPORT.** – The Secretary of Defense shall submit a report to the Committees on Armed Services of the Senate and the House of Representatives no later than March 15 of 1988, 1989, 1990, and 1991 with respect to activities carried out under this section

## **APPENDIX B**

### **BACKGROUND FOR MILITARY FAMILY HOUSING**

## BACKGROUND FOR MILITARY FAMILY HOUSING

TABLE B-1

### PILOT PROGRAM FOR MILITARY FAMILY HOUSING

Authority	Section 2321, PL 100-180 National Defense Authorization Act of 1988/89
Purpose	Assist local units of government to increase the amount or prevent the loss of affordable housing for military families
Criteria	Communities severely impacted by the presence of military bases and personnel Joint civilian-military effort Private-sector involvement and monetary commitment Reasonable proportion of housing units for military families
Funding	\$1,000,000 appropriated in FY88
Extent	Fiscal years 1988, 1989, and 1990
Activities	Revolving housing loan fund Housing loan guarantee fund to ensure repayment to private lenders Feasibility studies of potential housing programs One-time start-up costs of housing programs Joint community-military technical advisory organizations Other similar and related activities
Goals	Increase the number of affordable units Maximize unit production Match rents to affordability Leverage community and private-sector funds Maximize program longevity Establish long-term relationships with grantees

**TABLE B-2**

**GENERIC BASE/COMMUNITY WORKING RELATIONSHIPS  
(Responsibilities)**

<b>Grantee</b>	<b>Joint</b>	<b>Military base</b>
Program development	Program operations	Program feedback
Fiscal management	Applicant review	Housing requirements
Private-sector contacts	Monitoring	Military family contacts
Program advertisement	Rehabilitation inspections	Program advertising
Property identification	Location consensus	Family referrals
Loan approvals	Maximize benefits to military families	Rent affordability
Loan servicing		Contract with Office of Economic Adjustment
Quarterly reports		Program evaluation
Request for funds		Technical support
Accountability		
Audit		
Loan records		
Building code		
Federal funds		

**Note:** Joint responsibilities can best be achieved by establishing a joint civilian-military organization (e.g., task force, advisory group, review panel, council) that will meet regularly or as needed to accomplish these tasks.



**TABLE B-3**

**BENEFITS TO PARTICIPANTS**

<b>Community</b>	Stabilized rental market Reduced number of substandard housing units Increased property assessment valuation Lower number of vacant units Increased construction jobs Increased spending and sales tax revenues
<b>Banks</b>	Interest earned on loans Use of fund deposit for investments Tax deductions Community spirit exhibited Free advertising Potential for additional business with participants
<b>Property owners</b>	Low-cost loan Guaranteed occupancy/rent Upgraded rental unit Increased property value Stable income stream Tax deductions
<b>Military families</b>	More standard units from which to choose Affordable (lower) rents More disposable income Better quality of life
<b>Defense</b>	Less military construction funds needed for housing Improved quality of life More satisfied personnel/re-enlistments

# REPORT DOCUMENTATION PAGE

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